



IMPERIAL IRRIGATION DISTRICT

OPERATING HEADQUARTERS • P. O. BOX 937 • IMPERIAL, CALIFORNIA 92251

September 8, 1999

Mr. Todd Thompson
Associate Water Resources Control Engineer
State Water Resource Control Board, Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130
(916) 657-2388 FAX

Dear Mr. Thompson:

Subject: *Statewide Program Draft Environmental Impact Report (DEIR) Covering General Waste Discharge Requirements for Biosolids Land Application*

Thank you for the opportunity to comment on the executive summary for the *Statewide Program Draft Environmental Impact Report Covering General Waste Discharge Requirements for Biosolids Land Application* (Biosolid ES), a statewide program. The Biosolid ES evaluates the environmental impacts of the California State Water Resources Control Board's adoption and implementation of a General Order (GO) that would allow the issuance of general waste discharge requirements for land application of biosolids.

The Imperial Irrigation District (District), as the regional supplier of raw water for the Imperial Valley, has a real interest in the development of a General Order (GO) for these discharges as well as all issues related to biosolid management in agricultural and rural environments. The District maintains approximately 1,451 miles of surface drains to collect agricultural tailwater, operational discharge, and subsurface tile drainage flows, and as such is particularly concerned with the impacts that biosolid application may have on its drain water quality. District comments are as follows:

On page ES-2, first paragraph, next to the last sentence, a clearer definition of "biosolids" needs to be included. Simply stating that it is "commonly referred to as sewage sludge" is not a sufficient definition.

On page ES-7, Relationship of the GO to Part 503 Regulations section, second bullet, why are there no conditions for Class A Biosolids such as runoff restrictions?

On page ES-9, bullet number 8, the 30-day restriction on surface water runoff, the structures through which the surface water exits the site must be in good condition so that no site erosion occurs.

On page ES-10, last paragraph, second sentence, for the District's satisfaction, the spill response plan will need to discuss the potential of transport trucks ending up in our canals due to accidents.

On page ES-16, second and third paragraphs, Section 15131 of the CEQA Guidelines states that while economic or social effects of a project shall not be treated as significant, the information may be included in an EIR. The EIR "may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes."

On page ES-17, first paragraph, if the body of research on the health risks of land application of biosolids is not conclusive and "the potential for these risks will continue to be studied," then the application of biosolids should not be allowed until more research provides answers.

For Table ES-1, page 1 of 7, please change the following in the Soils, Hydrology, and Water Quality section: (a) for the "Potential degradation of surface water from nutrients in biosolids" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; (b) for the "Potential degradation of groundwater from nutrients" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; (c) for the "Potential degradation of surface water and groundwater from trace elements in biosolids" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; and (d) for the "Potential degradation of surface water and groundwater from synthetic organic compounds in biosolids" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure.

For Table ES-1, page 2 of 7, please change the following in the Land Productivity section, for the "Changes in amount of synthetic organic compounds in soils and resulting effects on agricultural productivity" impact, change the level of significance before mitigation from "less than significant" to potentially significant.

For Table ES-1, page 3 and 4 of 7, please change the following in the Public Health section: (a) for the "Potential for increased incidence of disease resulting from direct contact with pathogenic organisms at biosolids land application sites" impact, change the level of significance before mitigation from "less than significant" to potentially significant; (b) for the "Potential for increased incidence of disease resulting from direct human contact with pathogenic organisms in irrigation runoff from biosolids land application sites" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; (c) for the "Potential for increased incidence of chronic human disease resulting from ingestion of biosolids-derived metals in crops grown on land application sites or animals fed with crops grown on land application sites" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; (d) for the "Potential for increased risk of of

chronic disease resulting from ingestion of biosolids-derived organic compounds in food, soils, animals, dairy products, or wildlife" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; (e) for the "Potential for increased incidence of disease resulting from ingestion of groundwater contaminated by biosolids-derived pollutants or pathogens" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; (f) for the "Potential for increased incidence of acute or chronic disease resulting from human exposure to aerosols and wind-blown particulates from biosolids stockpiling, composting, or land application" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure; and (g) for the "Potential for increased risks of disease resulting from contact with biosolids spilled during transport from point of generation to application site" impact, change the level of significance before mitigation from "less than significant" to potentially significant and add "monitoring needed" as a mitigation measure.

11-10
(cont)

For Table ES-1, page 6 of 7, please change the following in the Air Quality section, for the "Biosolids drift associated with wind-blown biosolids" impact, change the level of significance before mitigation from "less than significant" to potentially significant.

11-11

For Table ES-1, page 6 of 7, please change the following in the Noise section, for the "Exposure of noise-sensitive land uses to noise from the land application of biosolids" impact, change the level of significance before mitigation from "less than significant" to potentially significant and under mitigation measure add "Avoid areas near residential and school lands".

11-12

For Table ES-1, page 7 of 7, please change the following in the Cumulative Impacts section, for the "Cumulative deterioration of roadways" impact, change the level of significance before mitigation from "less than significant" to "potentially significant" and under mitigation measure add "Avoid roads not built for industrial truck traffic".

11-13

Previously, the District has provided comments regarding biosolids land application on agricultural fields to the Imperial County Planning Department for incorporation into conditional use permits. These comments have included the following:

1. District notification of biosolids use (location and date) prior to application.
2. Tailwater structures should be completely grade boarded up and wrapped with plastic prior to the biosolids application process. This is a precaution against storm water runoff carrying materials off the field. The tailwater structures may be returned to their normal condition once the biosolids have been completely incorporated into the soil.
3. At least one sediment reduction Best Management Practice (BMP) should be incorporated into an irrigation management plan by the biosolids user.

11-14

4. Agricultural runoff (tailwater) and subsurface tilewater from sites accepting biosolids should be monitored for the metal concentrations as listed and for the presence of pathogens (as indicated by Fecal Coliform) during the first irrigation event after biosolid incorporation. Metal concentrations monitored should include arsenic, boron, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. If there is no evidence that biosolids are contributing pollutants to the District drainage system, this monitoring may be lessened or discontinued.

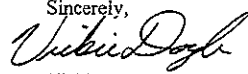
11-14
(cont)

The District also is supportive of "buffer zones" that restrict biosolid application with minimum setbacks from various locations (property lines, residences, downstream domestic water users, wells, roadways, water supplies, schools, hospitals, etc.) This is of even greater concern to the District as it begins implementing new rules to comply with changes in the federal and state Safe Drinking Water Acts.

11-15

Again, thank you for the opportunity to review the *Notice of Preparation of a Statewide Program Environmental Impact Report for General Waste Discharge Requirements for Biosolids Land Application*. This is an issue that is of great concern to the Imperial Irrigation District, and we look forward to providing input on future documents pertaining to this EIR process. Please include the Imperial Irrigation District's Resources Management Section on all future mailings. Please contact me at (760) 339-9446 if you have any questions regarding these comments.

11-16

Sincerely,

 Vickie Doyle
 Water Resources Assistant Engineer
 Resources Management Section

Responses to Comments from the Imperial Irrigation District

- 11-1. This comment states that the District has an interest in the development of the proposed GO. No response is necessary.
- 11-2. The commenter requested a clearer definition of biosolids in the EIR. The first paragraph on draft EIR page ES-2 is hereby revised to include the following final sentence:

Biosolids is defined as sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities as specified under 40 CFR Part 503.

- 11-3. Under the Part 503 regulations, runoff issues are not addressed. However, Class A material is subject to the entire GO, except for those requirements specifically mentioned for Class B biosolids. Within the proposed GO, Prohibition No. 7 prohibits runoff from irrigation for 30 days after the application unless the site includes a filter strip of unmowed grass or similar vegetation. The more specific requirements in Discharge Specification No. 7 are included for Class B because the characteristics of that material require more precautionary measures. Accordingly, Class A does have runoff restrictions specified in the proposed GO.
- 11-4. Comment noted. The text for page E-9 of the draft EIR will have a bullet added and read as follows:

structures conveying tailwater shall be designed and maintained to minimize any field erosion;

The text of the proposed GO, as found in Discharge Specification No. 7 of Appendix A, is added to read as follows:

Structures conveying tailwater shall be designed and maintained to minimize any field erosion.

- 11-5. Comment noted. Spill Response Plans should certainly include procedures to address accidental discharges to surface water bodies or discharges to conveyance structures that lead to surface water bodies or serve as a drinking water source. The details of a spill response plan, however, will not be in the requirements of the proposed GO. Rather, the industry will be required to develop such plans.
- 11-6. The commenter has correctly cited CEQA guidelines regarding the need to address economic issues in an EIR. SWRCB staff believes the potential for physical change in the

environment as a result of economic effects of the proposed GO is speculative. Therefore, while the EIR recognizes the controversy that exists regarding potential economic effects of the proposed GO, resultant environmental effects are not identified.

- 11-7. The commenter indicates that land application of biosolids should not be allowed until further research on health risks is completed. While it is true that there is not a large body of research relating specifically to biosolids and the potential to transmit certain high-profile diseases, there is sufficient information relating to disease transmission from wastewater disposal and other human activity to conclude that the risk of transmitting these diseases from land application of biosolids is small. The conservative approach being used in the proposed GO regarding human exposure to biosolids at and near land application sites is considered fully protective of human health. As additional research is conducted regarding pathogens in biosolids, SWRCB staff will continue to track and respond to any significant changes in the risks associated with land application.
- 11-8. The SWRCB staff respectfully disagrees with the commenter's request for changing CEQA impact significance levels of surface and groundwater quality impacts from "less than significant" to "potentially significant." Refer to Master Response 13 for a description of how potential water quality impacts to surface and groundwater resources were evaluated and why the identified impacts were considered less than significant.
- 11-9. The commenter recommends that in Chapter 4, Land Productivity, under the heading "Changes in Amount of Synthetic Organic Compounds in Soils and Resulting Effects on Agricultural Productivity"(Table ES-1), the impacts be considered "potentially significant" (the draft EIR indicates the impact as "less than significant").

The draft EIR concluded that effects on agricultural productivity caused by changes in synthetic organic compounds in soils would not significantly impact the environment. The SWRCB staff believes that there is adequate scientific and specific project data to support this conclusion. This information has been addressed in the EIR. Therefore, no change to Table ES-1 regarding this impact is required.

- 11-10. Comment noted. The impact conclusions remain valid based on the information and analysis contained in the draft EIR; no changes were made based on the comment.
- 11-11. The commenter requests that the significance determination for the following impact, "Biosolids drift associated with wind-blown biosolids," be changed from "less than significant" to "potentially significant." This change has not been made because the analysis concluded that land application of biosolids, in accordance with the proposed GO, would not result in a significant impact. Additionally, since the publication of the draft EIR, the proposed GO has been further refined to require the incorporation of biosolids (where tillage will occur) within 24 hours in arid areas and within 48 hours in non-arid areas. The proposed GO also now prohibits the application of biosolids with a moisture content of less than 50 percent. These changes to the proposed GO do not alter the

significance conclusions presented in the EIR; however, refinement of the proposed GO will further reduce the potential for soil containing biosolids to be blown off application sites.

- 11-12. The noise analysis in the draft EIR states that “the primary land uses in the potential application areas would be rural residential and/or agricultural operations” (page 11-1). Because the application of biosolids on agricultural land would emit noise levels similar to those of existing agricultural equipment in those areas, even near residences and schools, this impact was found to be less than significant. The same restrictions that apply to agricultural operations near residences and schools would correspondingly limit land application of biosolids in those agricultural areas. No change in the text of the draft EIR is required.
- 11-13. The number of vehicles that would use roadways to deliver biosolids is a small percentage of the overall volume of vehicles on these roads. In addition, Sections 35550-35559 of the California Vehicle Code identify weight and load limitations for trucks on state highways (see page 9-2 of the draft EIR). These limitations would also apply to county roadways if no limitations were specified by the county. Biosolids transport trucks would be required to meet these state requirements. Therefore, no additional mitigation is required.
- 11-14. The issues discussed in this comment are addressed as discussed below:
1. Provision No. 3 requires notification of the local water district.
 2. The text of the proposed GO, as found in Discharge Specification No. 7 of Appendix A, is added to read as follows:

Tail water structures shall be boarded and wrapped with plastic prior to any biosolids application, but removed after biosolids incorporation into the soil.

3. SWRCB staff agrees that irrigation BMPs are important. In fact, a vegetative filter strip is already required for discharges within 30 days of the biosolids application in Prohibition No. 7. But, it is possible that material will be spread where it is intended for dry land farming. In such cases, irrigation BMPs would not be applicable. The proposed GO also requires that tillage practices be used that minimize erosion from wind and water. As such, erosion issues are addressed in the proposed GO, but in a way that they are applied site-specifically and therefore relate to all sites.
4. There is no technical justification for requiring tailwater and tilewater monitoring by individual farmers solely because they use biosolids for a fertilizer or soil amendment. It is acknowledged that such monitoring would add to the knowledge base regarding this material, as well as the knowledge base on the water quality impacts from fertilizer use as a whole. However, the economic cost of requiring individual farmers to monitor their tailwater and tilewater solely because of the use of biosolids is not warranted.

- 11-15. The commenter expresses support for “buffer zones.” The comment is noted and no response is required.
- 11-16. The Imperial Irrigation District’s Resource Management Section has been added to the distribution list.